

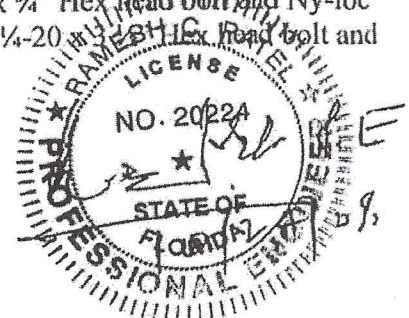
**Number and Size of Braces:**      Three (3) outer braces each measured 2.250" wide x 2.3125" high x 57.125" long overall and three (3) inner braces each measured 2.0625" wide x 2.000" high x 57.125" long overall.

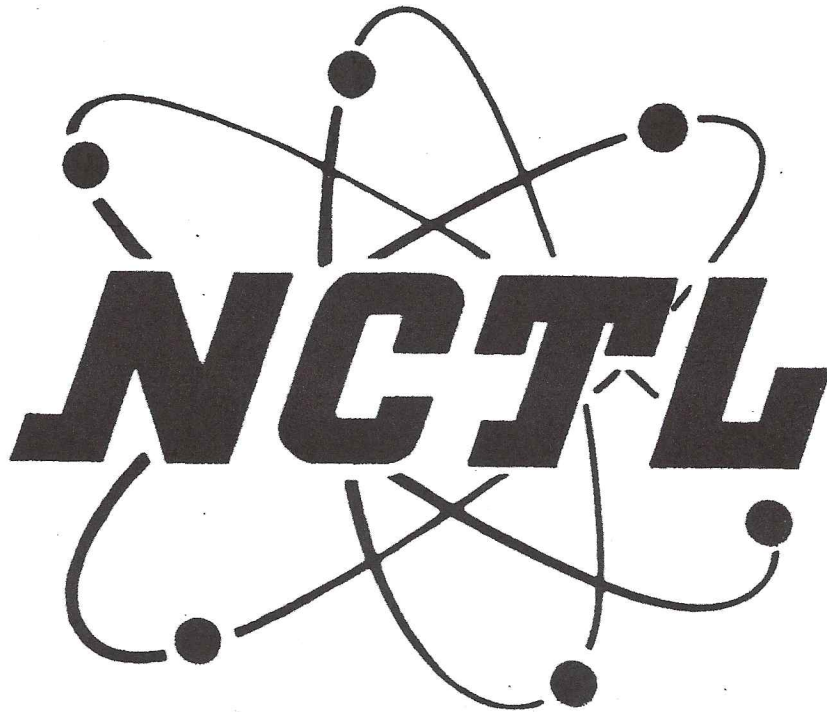
**Hardware:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
16 gauge galvanized steel "T" Secure Clip measuring 2.00" wide x 2.50" high	Three (3)	One (1) per each vertical brace
"U" Bolt measuring 3/8" x 2.50" wide x 10" high	Three (3)	Top of each vertical brace secured with two (2) "U" bolt plates and four (4) 3/8-16 nuts
11 gauge Top Bracket measuring 5.00" wide x 2.50" high overall	Three (3)	Secured to header at each vertical brace location
12 gauge Deflection Bracket measuring 1.50" wide x 7.00" high	Twenty-four (24)	Pivot Hinges, two (2) per hinge
6.625" wide x 4.60" high overall (.134" thick) galvanized steel Floor Plate	Three (3)	One (1) located on bottom of each vertical brace

**Installation:**      Each aluminum vertical brace was anchored at the bottom to concrete using a 10 gauge galvanized steel floor plate secured to the vertical brace utilizing two (2) 1/4-20 x 1/2" Hex head bolts and Ny-loc nut. Three (3) 3/8" x 5/8" Round Heavy Duty bolts with 3/8" drop-in anchor secured the floor plate to the concrete. The 11 gauge galvanized steel top bracket component was fastened to the test buck utilizing three (3) 1/4 x 3" Wood Lag screws. A "U" bolt secured the vertical brace to the top bracket. Eight (8) 12 gauge galvanized steel deflection brackets were utilized to secure each vertical brace to garage door at the pivot hinges, two (2) per each hinge location. The deflection brackets were secured to the vertical brace each utilizing one (1) 1/4-20 x 3/4" Hex head bolt and Ny-loc nut and secured through the pivot hinge utilizing one (1) 1/4-20 Hex head bolt and wing nut.

**Glazing:**            N/A





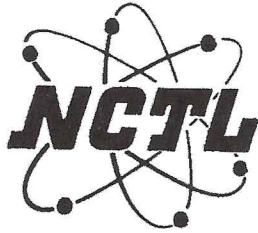
**SECURE DOOR**

**STRUCTURAL PERFORMANCE TEST REPORT**

Series "180" Vertical Bracing System

NCTL-210-2064-1 (S)

**NATIONAL CERTIFIED TESTING LABORATORIES**



## **NATIONAL CERTIFIED TESTING LABORATORIES**

1464 GEMINI BOULEVARD • ORLANDO, FLORIDA 32837  
PHONE (407) 240-1356 • FAX (407) 240-8882

### **STRUCTURAL PERFORMANCE TEST REPORT**

Report No: NCTL-210-2064-1 (S)  
Test Date: 06/18/98  
Report Date: 02/03/04  
Expiration Date: 06/30/08

**Client:** Secure Door  
1540 NW 101<sup>st</sup> Avenue  
Plantation, FL 33322

**Test Specimen:** Secure Door Series "180" Vertical Bracing System.

**Test Method:** ASTM E330-90, "The Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference."

#### **GARAGE DOOR DESCRIPTION**

**General:** The door tested was a standard embossed raised panel steel door 16' 0" wide opening by 7' 0" high. The door was assembled in the wood test buck in accordance with the manufacturer's installation instructions. Guide sections were attached with five track brackets to No. 2 Southern Yellow Pine pressure treated 2 x 6 wood jambs in the test chamber. The door was fabricated with 3 center stiles plus an additional stile was placed between the glazing in the top section only. There were eight glazed openings in the top section, each approximately 12" x 17". The sections were fabricated from a nominal 0.0175" thick sheet steel.

#### **TEST SPECIMEN DESCRIPTION**

**Model/Series:** "180"

**Overall Size:** 8' 3 1/4"

**Configuration:** Telescope type reinforcing brace

**Number & Size of Braces:** Two (2) outer braces 4'9 1/8" high by 0'21/4" wide.  
Inner brace 4'9 1/8" high by 0'21/4" wide.

**Brace Material:** Extruded aluminum

**Hardware:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Retainer brace	Four (4)	At each door
	Twelve (12) total	Pivot hinge
Anchor Plate	Two (2)	Top and bottom of each vertical brace.

**Installation:** Each aluminum vertical brace was anchored at the bottom using a 10 gauge thick galvanized steel floor plate. Three (3) 1/2" wedge and anchor secured the floor plate to the concrete floor section. A 10 gauge thick galvanized steel top plate component was fastened to the test buck using four (4) (# 14 x 2 1/2") Hex head screws. A 3/8" x 2 1/2" x 6" "U" bolt secured the top portion of the brace to the top plate component. Four (4) 12 gauge thick galvanized steel deflection brackets were used to secure the vertical brace to garage door pivot hinges.

**Glazing:** The fixed lite was exterior glazed 1/4" thick annealed glass with a silicone back-bedding and exterior extruded aluminum glazing bead.

**Weatherseals:** No weatherseals employed.

**Weeps:** No apparent weeps employed.

**Interior & Exterior Surface Finish:** White painted aluminum

**Sealant:** The frame corners were sealed with a silicone sealant.

Test Results

Note: Uniform structural loads were performed on a standard 16'0" wide by 7'0" high garage door. The following results were obtained.

<u>Test Method</u>	<u>Title of Test</u>	<u>Measured</u>	<u>Allowed</u>
ASTM E330-90	Uniform Load Structural		
	12.74 psf interior	See Note No. 1	
	12.74 psf = (70) mph velocity		

Note No. 1: Deflection at the door bottom was so excessive that successful recovery of the product could not be obtained.

Note No. 2: At this point in testing, an identical test specimen was tested using Secure Door's vertical bracing system. The following results were obtained.

Structural Test Results

<u>Test Method</u>	<u>Title of Test</u>	<u>Measured</u>	<u>Allowed</u>
ASTM E330-90	Uniform Load Structural		<u>Deflection</u>
	Design Pressure 55.3 psf exterior	0.540"	0.548"
	Design Pressure 55.3 psf interior	0.539"	0.548"
	Uniform Load Structural		<u>Set</u>
	Full Load 83.0 psf exterior	0.336"	0.384"
	Full Load 83.0 psf interior	0.301"	0.384"
	83.0 psf = (180.0) mph velocity		

At the conclusion of testing normal operation of the door was observed.

Detailed drawings were available for laboratory records and compared to the test specimen at the time of this report.

A copy of this report will be retained by NCTL for a period of four (4) years. The results obtained apply only to the specimens tested.

NATIONAL CERTIFIED TESTING  
LABORATORIES, INC.

Michael E. Lane (amb)

MICHAEL E. LANE  
Division Manager

MEL/ld

Baryo Portner  
8/5/92



STATE OF FLORIDA  
**DEPARTMENT OF COMMUNITY AFFAIRS**

*"Dedicated to making Florida a better place to call home"*

JEB BUSH  
Governor

THADDEUS L. COHEN, AIA  
Secretary

**MEMORANDUM**

Florida Building Commission  
Raul L. Rodriguez, AIA, Chairman

Date: December 6, 2006

Re: Demonstration of Product Compliance for the High Velocity Hurricane Zone and Other Areas Accepting "NOA's"

Florida Statutes, section 553.842, govern local and state approval of building products directly related to the structural wind resistance of buildings. The law establishes specific methods for manufacturers to demonstrate compliance with the Florida Building Code but gives the manufacturer the option of obtaining either local or state approval. State approved products must be accepted by local jurisdictions within the limitations of use established by the state approval without requirement for further testing, evaluation or submission of evidence. (Florida Statute, section 553.842(4) Products or methods or systems of construction requiring approval under s. 553.77 must be approved by one of the methods established in subsection (5) before their use in construction in this state. Products may be approved by the commission for statewide use. Notwithstanding a local government's authority to amend the Florida Building Code as provided in this act, statewide approval shall preclude local jurisdictions from requiring further testing, evaluation, or submission of other evidence as a condition of using the product so long as the product is being used consistent with the conditions of its approval.) When a product is state approved the local jurisdiction's authority extends only to determining the product is being used within the conditions established by the approval.

State approval of products for use in the High Velocity Hurricane Zone (HVHZ) is commonly but not always based on a Miami-Dade Notice of Acceptance" (NOA). The law guarantees manufacturers other means of demonstrating compliance with HVHZ requirements so long as their products are tested or evaluated using the standards that apply in the HVHZ. The Miami-Dade Code Compliance Office reviews applications for state approval of HVHZ products and advise the Florida Building Commission on their compliance with HVHZ standards. Compliance can be determined by accessing the state approval online using the state approval number then checking the standards products were tested to and the "limitations of use" documentation.

Approval by the State or Miami-Dade County allows acceptance of a product for use within the HVHZ. However, the building permitting authority must determine whether products comply with the requirements of the Code specific to the building they are used in. The State or Miami-Dade approvals provide the information required for this determination. Further testing or engineering evaluation cannot be required unless the permit applicant wishes to demonstrate the product can be used outside of the approved limitations of use.

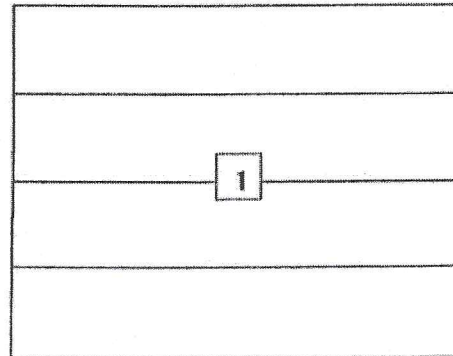
2555 SHUMARD OAK BOULEVARD TALLAHASSEE, FLORIDA 32399-2100  
Phone: 850.488.8466/Suncom 278.8466 FAX: 850.921.0781/Suncom 291.0781  
Internet address: <http://www.dca.state.fl.us>

### Performance Test Results

**Test Sequence: TAS 202-94**  
**Deflection Gauge Set at Box 1**

1. ½ Test Pressure Positive
2. ½ Test Pressure Negative
3. Design Pressure Positive
4. Design Pressure Negative
5. Test Pressure Positive
6. Test Pressure Negative

#### Measurement Locations



Deflection / Permanent Set were measured with one (1) Unimeasure Model # PA4005 Potentiometer SN-36100875.  
Measurements were taken at:

- Location 1                      Center mid-span of sectional door

**Uniform Structural Load Test**

**Static Tests were conducted in accordance with DCBCCD TAS 202-94**

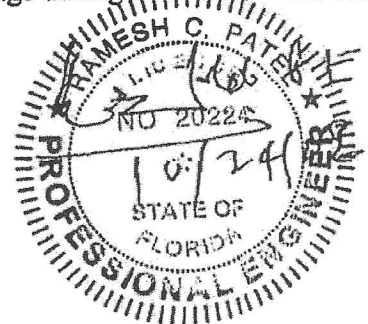
<u>Range of test</u>	<u>Duration</u>	<u>Actual Load</u>		<u>Deflection</u>	<u>Set</u>
<b>Positive Loads (Design Pressure: + 50.0 psf.)</b>					
50% Test Load	30 Second Loading	37.5 psf.			
Design Load	60 Second Loading	50.0 psf.	Loc. 1	2.306"	.386"
Test Load	30 Second Loading	75.0 psf.	Loc. 1	4.075"	.893"
<b>% Recovery at Design Pressure: 83.3%</b>					

**Negative Loads (Design Pressure: - 50.0 psf.)**

50% Test Load	30 Second Loading	37.5 psf.			
Design Load	60 Second Loading	50.0 psf.	Loc. 1	2.065"	.250"
Test Load	30 Second Loading	75.0 psf.	Loc. 1	4.075"	.950"
<b>% Recovery at Design Pressure: 87.9%</b>					

**Note:** The door system was fully operable prior to and at the conclusion of this test, and did not sustain any damage that would render it inoperable. The door system remained in the opening throughout the duration of the test.

**Comments:** Nominal 2-mil polyethylene film was used to seal against air leakage during structural loads. The film was used in a manner that did not influence the test results.



**Remarks:** Detailed drawings were available for laboratory records and comparison to the tested specimen at the time of this report. A copy of this report along with representative sections of the tested specimens will be retained by CTL for a period of ten (10) years. The results obtained apply only to the specimens tested.

This test report does not constitute certification of this product, but only that the above results were obtained using the designated test methods and they indicate compliance with the performance requirements (paragraphs as listed) of the above referenced specification.

Certified Testing Laboratories assumes that all information provided by the client is accurate, and that all physical and chemical properties of the components are as stated by the Manufacturer.

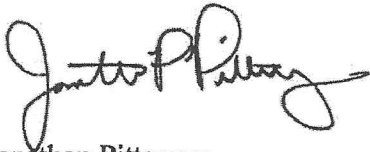
*Certified Testing Laboratories, Inc.*

**Clients Present**

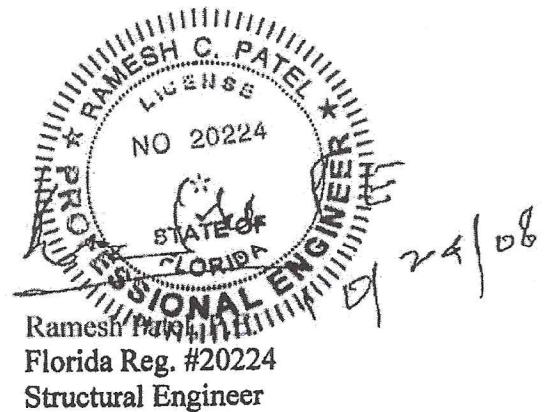
Jack Stumpff      Secure Enterprises LLC

**All Test Witnessed By**

Sam Fatula      CTL  
Ted Scanlon      CTL  
Ramesh Patel, P.E.



Jonathan Pittenger  
Lab Technician  
Architectural Division

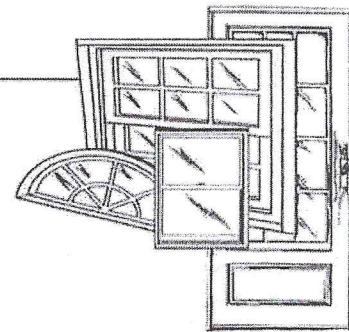


cc:    Secure Enterprises LLC      (2)  
      Category 5 Eng. Services      (2)  
      Ramesh Patel, P.E.            (1)  
      File                                (1)



# CERTIFIED TESTING LABORATORIES

Architectural Division • 7252 Narcoossee Rd. • Orlando, FL 32822  
(407) 384-7744 • Fax (407) 384-7751  
Web Site: www.ctlarch.com  
E-mail: ctlarch.com



Report No.: CTLA 1630W-1  
Report Date: October 24, 2008  
CTL Certification # 08-0528.05  
DC Not. No.: 08023

Test Start Date: October 23, 2008  
Test Finish Date: October 23, 2008

## STRUCTURAL PERFORMANCE TEST REPORT

**Testing Conducted at:** Secure Enterprises LLC  
1540 NW 101<sup>st</sup> Avenue  
Plantation, FL 33322

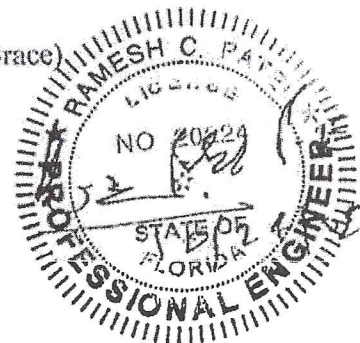
**Tests Conducted:** TAS 202-94 (Structural Only)

**Product Type & Series/Model:** Secure Door Series "180" Aluminum Vertical Bracing System

**Garage Door Description:** The doors tested were standard steel sectional garage doors each measuring 16' wide x 7' high with four (4) sections. The door was assembled in the wood test buck in accordance with the manufacturer installation instructions, included with this report. Guide sections were attached to No. 2 SYP wood jambs in the test chamber utilizing three (3) track brackets. The door was fabricated with five (5) center stiles. Note: An additional hinge location was added to each door at the bottom of the bottom section for vertical brace securing.

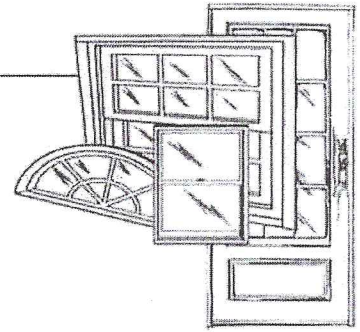
### Test Specimen Description

**Model/Series:** CHI 2250 Sectional Garage Door with Three (3) Vertical Braces  
**Overall Size:** 16' wide x 7' high (Garage Door) || 7' 9" high (Vertical Brace)  
**Configuration:** Telescope type reinforcing brace  
**Brace Material:** Extruded Aluminum



# CERTIFIED TESTING LABORATORIES

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(407) 384-7744 • Fax (407) 384-7751  
Web Site: www.ctlarch.com  
E-mail: ctlarch.com



**Report No.:** CTLA 1630W  
**Report Date:** October 24, 2008

**Test Start Date:** September 19, 2008  
**Test Finish Date:** September 19, 2008

## STRUCTURAL PERFORMANCE TEST REPORT

**Testing Conducted at:** Secure Enterprises LLC  
1540 NW 101<sup>st</sup> Avenue  
Plantation, FL 33322

**Tests Conducted:** ASTM E330-02 "Standard Test Method for Structural Performance of Exterior Window, Doors, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference."

**Product Type & Series/Model:** Secure Door Series "180" Aluminum Vertical Bracing System

**Garage Door Description:** The doors tested were standard steel sectional garage doors each measuring 16' wide x 7' high with four (4) sections. The door was assembled in the wood test buck in accordance with the manufacturer installation instructions, included with this report. Guide sections were attached to No. 2 SYP wood jambs in the test chamber utilizing three (3) track brackets. The door was fabricated with five (5) center stiles. Note: An additional hinge location was added to each door at the bottom of the bottom section for vertical brace securing.

### Test Specimen Description

**Model/Series:**

**Specimen 1:** CHI 2250 Sectional Garage Door (.0305" min. thick) with Three (3) Vertical Braces  
**Specimen 2:** Clopay 73 Sectional Garage Door (.0290" min. thick) with Two (2) Vertical Braces

**Overall Size:**

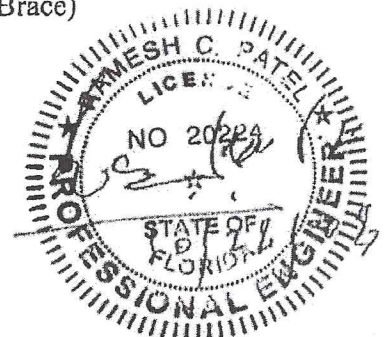
**All Specimens** 16' wide x 7' high (Garage Door) || 7' 9" high (Vertical Brace)

**Configuration:**

**All Specimens** Telescope type reinforcing brace

**Brace Material:**

**All Specimens** Extruded Aluminum



**Number and Size of Braces:**

**Specimen 1:**      Three (3) outer braces each measured 2.250" wide x 2.3125" high x 57.125" long overall and three (3) inner braces each measured 2.0625" wide x 2.000" high x 57.125" long overall.

**Specimen 2:**      Two (2) outer braces each measured 2.250" wide x 2.3125" high x 57.125" long overall and two (2) inner braces each measured 2.0625" wide x 2.000" high x 57.125" long overall.

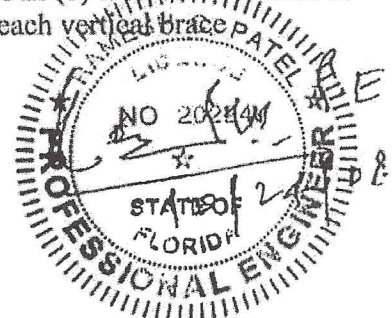
**Hardware:**

**Specimen 1:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
16 gauge galvanized steel "T" Secure Clip measuring 2.00" wide x 2.50" high	Three (3)	One (1) per each vertical brace
"U" Bolt measuring 3/8" x 2.50" wide x 10" high	Three (3)	Top of each vertical brace secured with two (2) "U" bolt plates and four (4) 3/8-16 nuts
11 gauge Top Bracket measuring 5.00" wide x 2.50" high overall	Three (3)	Secured to header at each vertical brace location
12 gauge Deflection Bracket measuring 1.50" wide x 7.00" high	Twenty-four (24)	Pivot Hinges, two (2) per hinge
6.625" wide x 4.60" high overall (.134" thick) galvanized steel Floor Plate	Three (3)	One (1) located on bottom of each vertical brace

**Specimen 2:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
16 gauge galvanized steel "T" Secure Clip measuring 2.00" wide x 2.50" high	Two (2)	One (1) per each vertical brace
"U" Bolt measuring 3/8" x 2.50" wide x 10" high	Two (2)	Top of each vertical brace secured with two (2) "U" bolt plates and four (4) 3/8-16 nuts
11 gauge Top Bracket measuring 5.00" wide x 2.50" high overall	Two (2)	Secured to header at each vertical brace location
12 gauge Deflection Bracket measuring 1.50" wide x 7.00" high	Sixteen (16)	Pivot Hinges, two (2) per hinge
6.625" wide x 4.60" high overall (.134" thick) galvanized steel Floor Plate	Two (2)	One (1) located on bottom of each vertical brace



**Installation:**

All Specimens

Each aluminum vertical brace was anchored at the bottom to concrete using a 10 gauge galvanized steel floor plate secured to the vertical brace utilizing two (2) 1/4-20 x 1/2" Hex head bolts and Ny-loc nut. Three (3) 3/8" x 5/8" Round Heavy Duty bolts with 3/8" drop-in anchor secured the floor plate to the concrete. The 11 gauge galvanized steel top bracket component was fastened to the test buck utilizing three (3) 1/4 x 3" Wood Lag screws. A "U" bolt secured the vertical brace to the top bracket. Eight (8) 12 gauge galvanized steel deflection brackets were utilized to secure each vertical brace to garage door at the pivot hinges, two (2) per each hinge location. The deflection brackets were secured to the vertical brace each utilizing one (1) 1/4-20 x 3/4" Hex head bolt and Nyloc nut and secured through the pivot hinge utilizing one (1) 1/4-20 x 3 1/2" Hex head bolt and wing nut.

**Glazing:**

All Specimens

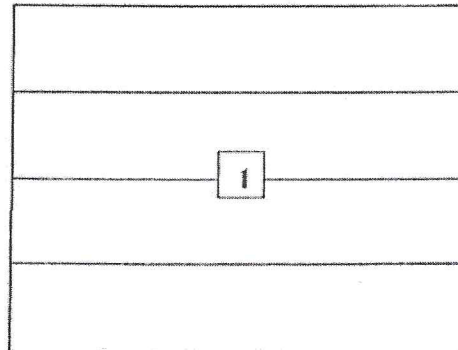
N/A

**Performance Test Results**

**Test Sequence: ASTM E330-02**  
**Deflection Gauge Set at Box 1**

1. 1/2 Test Pressure Positive
2. 1/2 Test Pressure Negative
3. Design Pressure Positive
4. Design Pressure Negative
5. Test Pressure Positive
6. Test Pressure Negative

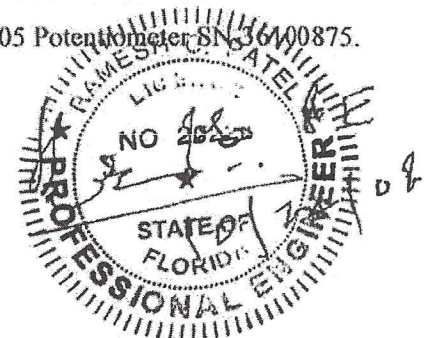
Measurement Locations



Deflection / Permanent Set were measured with one (1) Unimeasure Model # PA4005 Potentiometer SN 36100875.

Measurements were taken at:

- Location 1              Center mid-span of sectional door



**ASTM E330-02**

**Specimen 1:**  
**Uniform Static Loading**

<u>Range of test</u>	<u>Duration</u>	<u>Actual Load</u>		<u>Deflection</u>	<u>Set</u>
<b>Positive Loads (Design Pressure: + 47.5 psf.)</b>					
50% Test Load	10 Second Loading	35.625 psf.			
Design Load	60 Second Loading	47.5 psf.	Loc. 1	2.547"	.390"
Test Load	10 Second Loading	71.25 psf.	Loc. 1	3.474"	.890"
<b>% Recovery at Design Pressure: 84.7%</b>					

**Negative Loads (Design Pressure: - 47.5 psf.)**

50% Test Load	10 Second Loading	35.625 psf.			
Design Load	60 Second Loading	47.5 psf.	Loc. 1	2.004"	.250"
Test Load	10 Second Loading	71.25 psf.	Loc. 1	4.004"	1.290"
<b>% Recovery at Design Pressure: 87.5%</b>					

**Note:** The door system was fully operable prior to and at the conclusion of this test, and did not sustain any damage that would render it inoperable. The door system remained in the opening throughout the duration of the test.

**ASTM E330-02**

**Specimen 2:**  
**Uniform Static Loading**

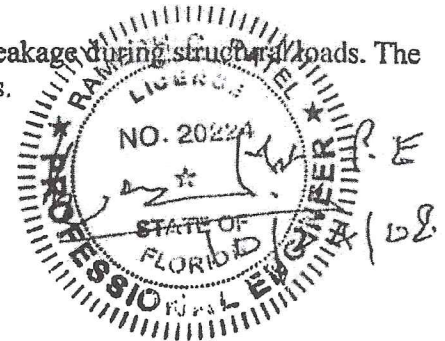
<u>Range of test</u>	<u>Duration</u>	<u>Actual Load</u>		<u>Deflection</u>	<u>Set</u>
<b>Positive Loads (Design Pressure: + 31.0 psf.)</b>					
50% Test Load	10 Second Loading	23.25 psf.			
Design Load	60 Second Loading	31.0 psf.	Loc. 1	2.516"	.111"
Test Load	10 Second Loading	46.5 psf.	Loc. 1	6.596"	2.674"
<b>% Recovery at Design Pressure: 95.6%</b>					

**Negative Loads (Design Pressure: - 31.0 psf.)**

50% Test Load	10 Second Loading	23.25 psf.			
Design Load	60 Second Loading	31.0 psf.	Loc. 1	5.761"	1.268"
Test Load	10 Second Loading	46.5 psf.	Loc. 1	8.018"	2.501"
<b>% Recovery at Design Pressure: 78.0%</b>					

**Note:** The door system was fully operable prior to and at the conclusion of this test, and did not sustain any damage that would render it inoperable. The door system remained in the opening throughout the duration of the test.

**Comments:** Nominal 2-mil polyethylene film was used to seal against air leakage during structural loads. The film was used in a manner that did not influence the test results.



**Remarks:** Detailed drawings were available for laboratory records and comparison to the tested specimen at the time of this report. A copy of this report along with representative sections of the tested specimens will be retained by CTL for a period of four (4) years. The results obtained apply only to the specimens tested.

This test report does not constitute certification of this product, but only that the above results were obtained using the designated test methods and they indicate compliance with the performance requirements (paragraphs as listed) of the above referenced specification.

Certified Testing Laboratories assumes that all information provided by the client is accurate, and that all physical and chemical properties of the components are as stated by the Manufacturer.

*Certified Testing Laboratories, Inc.*

**Clients Present**

Jack Stumpff      Secure Enterprises LLC

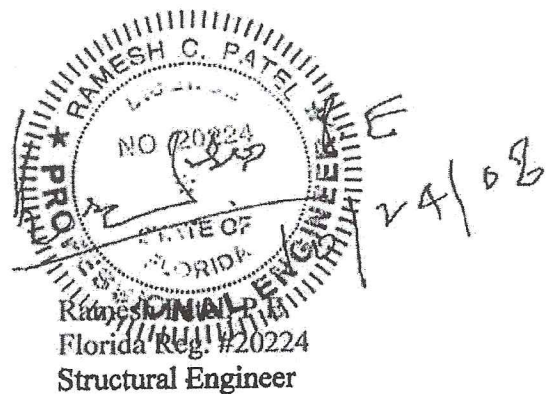
**All Test Witnessed By**

Gary Nations      CTL

Sam Fatula      CTL



Jonathan Pittenger  
Lab Technician  
Architectural Division



- cc:    Secure Enterprises LLC      (2)  
      Category 5 Eng. Services    (2)  
      Ramesh Patel, P.E.          (1)  
      File                            (1)